

Mineral Industry Surveys

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TUNGSTEN IN JANUARY 1998

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from hydrogen-reduced metal powder, was 50% higher in January 1998 than net production in December 1997, according to the U.S. Geological Survey.

This report contains detailed trade data for December 1997 and the 1997 annual totals. Trade data for January 1998 will be published in a subsequent issue.

Note

All data in this report have been rounded to no more than three

significant digits. Totals were calculated by using unrounded data.

Price

Prices for tungsten ore in dollars per metric ton unit (\$/mtu) from Metal Bulletin are listed below. Prices in dollars per short ton unit (\$/stu) were converted from metric ton unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ores with a minimum WO₃ content of 65%.

February 1-28, 1998

Low \$40/mtu WO₃ (\$36/stu WO₃)
High \$52/mtu WO₃ (\$47/stu WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate			Reported scrap consumption	Intermediate products		
	Reported consumption	Imports for consumption	Stocks, end of period 2/		Net production 3/	Reported consumption 4/	Stocks, end of period 5/
<u>1997: p/</u>							
January	426	260	808	223	679	613	1,400
February	533	276	584	185	682	623	1,440
March	698	480	650	247	676	625	1,450
April	586	202	630	217	802	626	1,370
May	536	753	542	173	534	522	1,210
June	674	366	596	228	764	611	1,300
July	633	396 r/	775	285	789	599	1,430
August	522	282	566	256	538	600	1,360
September	545	600	594	233	702	613	1,320
October	388	284	529	277	738	633	1,210
November	422	260	637	210	640	619 r/	1,260
December	629	689	658	195 r/	691 r/	603 r/	1,210 r/
January-December	6,590	4,850	XX	2,730 r/	8,240 r/	7,290 r/	XX
<u>1998:</u>							
January	587	NA	685	205	1,040	615	1,350

p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Reported by consumers.

3/ Net production of tungsten metal powder, tungsten carbide powder, chemicals, and other products.

4/ Includes data on tungsten carbide powder from secondary sources.

5/ Reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
<u>1997: p/</u>			
January	540	663	572
February	W	689	586
March	W	712	690
April	W	790	666
May	645	716	750
June	765	W	W
July	726	816	798
August	669	834	W
September	665	782	W
October	667	941	717
November	W	772	540
December	698	W	W
January-December	5,380 r/	7,720 r/	XX
<u>1998:</u>			
January	712	942	326

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; not included in total. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Producers and consumers.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product	Net production 2/			Stocks at end of period	
	1997 p/	January	Year to date	1997 p/	January
Metal powder	3,380	580	580	714	795
Tungsten carbide powder (made from metal powder)	4,860	457	457	405	456
Cast and crystalline carbide powder; other	--	--	--	W	W
Chemicals	W	W	W	95	95
Total	8,240	1,040	1,040	1,210	1,350

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; not included in total.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross production less quantity used to make other products in table.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE 1/ 2/ 3/

(Metric tons, tungsten content)

End use	1997 p/		
	December	Year to date	January
Steel:			
Tool	W	350	W
Other	10	132	12
Superalloys	21	258	22
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	445 r/	5,480 r/	451
Mill products made from metal powder	33	W	37
Chemical uses	W	W	W
Miscellaneous and unspecified	93	1,070	93
Total	603 r/	7,290 r/	615

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Does not include materials used in making primary tungsten products.

3/ Includes estimates.

4/ Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

5/ Includes diamond bit matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/ 2/ 3/

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Scheelite (natural, synthetic)	Tungsten scrap	Other tungsten materials 4/	Total
Consumption:							
1997: p/							
January	48	38	492	--	29	6	613
February	48	55	486	--	26	8	623
March	42	46	499	--	28	10	625
April	47	60	481	--	29	8	626
May	34	59	394	--	27	7	522
June	33	53	493	--	21	11	611
July	32	44	489	--	26	9	599
August	34	47	483	--	28	8	600
September	34	58	484	--	29	8	613
October	32	63	500	--	32	6	633
November	35	55	500 r/	--	22	7	619 r/
December	33	47	492 r/	--	22	8	603 r/
January-December	453	625	5,790 r/	--	321	96	7,290 r/
1998:							
January	34	51	498	--	23	8	615
Stocks:							
1997: p/							
January	21	38	293	--	23	11	387
February	24	26	280	--	22	12	363
March	24	26	297	--	26	17	390
April	25	26	304	--	29	12	396
May	18	26	286	--	27	19	376
June	17	26	314	--	26	14	396
July	21	26	316	--	32	16	410
August	23	18	275	--	32	14	362
September	21	18	317	--	30	17	403
October	25	15	274	--	23	12	350
November	28	15	282 r/	--	31	15	371
December	26	15 r/	282 r/	--	31	13	367 r/
1998:							
January	28	15	279	--	30	13	366

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Does not include materials used in making primary tungsten products.

3/ Includes estimates.

4/ Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferro-tungsten	Metal powder	Tungsten carbide	Other e/ 2/	Total	Total year to date p/ 3/
1996	4,190	1,580	535	404	404	2,820	9,930	XX
1997:								
October	284	238	43	13	49	269	896	9,307
November	260	178	41	79	107	123	788	10,100
December:								
Australia	--	--	--	--	--	--	--	23
Austria	--	--	--	--	--	1	1	45
Belgium	--	--	--	1	--	--	1	27
Bolivia	75	--	--	--	--	--	75	635
Canada	--	--	--	--	7	(4/)	7	53
Chile	--	--	--	--	--	--	--	46
China	--	130	--	13	33	225	401	4,230
Czech Republic	--	--	--	--	(4/)	--	(4/)	28
France	--	--	--	(4/)	(4/)	(4/)	(4/)	26
Germany	--	1	1	2	17	2	24	446
Hong Kong	--	--	--	--	--	(4/)	(4/)	171
Hungary	--	--	--	--	--	(4/)	(4/)	7
India	--	--	--	--	--	(4/)	(4/)	11
Ireland	--	--	--	--	--	--	--	(4/)
Israel	--	--	--	12	--	1	13	55
Italy	--	--	--	--	--	--	--	(4/)
Japan	--	--	--	1	(4/)	2	4	87
Kazakhstan	--	--	--	--	--	--	--	626
Korea, Republic of	--	--	--	--	2	--	2	17
Latvia	--	--	--	--	--	--	--	31
Mexico	10	--	--	--	--	1	10	184
Mongolia	22	--	--	--	--	--	22	22
Netherlands	--	--	--	--	--	(4/)	(4/)	19
Peru	--	--	--	--	--	--	--	212
Portugal	253	--	--	--	--	--	253	1,010
Russia	318	--	14	--	--	--	332	2,760
Rwanda	--	--	--	--	--	--	--	51
Singapore	--	--	--	--	--	(4/)	(4/)	1
South Africa	--	--	--	--	--	--	--	1
Spain	--	--	--	--	--	--	--	(4/)
Sweden	--	--	--	--	--	(4/)	(4/)	76
Switzerland	--	--	--	--	--	2	2	14
Taiwan	--	--	--	--	--	(4/)	(4/)	(4/)
Thailand	12	--	--	--	--	--	12	38
Turkey	--	--	--	--	--	--	--	1
Ukraine	--	--	--	--	--	(4/)	(4/)	(4/)
United Kingdom	--	--	--	--	--	60	60	357
Uzbekistan	--	--	--	--	--	--	--	17
Total	689	131	15	29	60	295	1,220	11,300
Total, year to date p/ 3/	4,850	2,100	803	432	650	2,490	11,300	XX

e/ Tungsten content estimated in part. p/ Preliminary. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten.

3/ May include revisions to previous months' data.

4/ Less than 1/2 unit.

Note: Imports of waste and scrap in December 1997 totaled 148 metric tons, tungsten content.

Source: Bureau of the Census.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates e/	Ammonium tungstates	Metal powder e/	Tungsten carbide	Other e/ 2/	Total	Total year to date
1996	72	150	240	1,290	289	2,040	XX
1997:							
October	1	47	31	90	43	212	1,640
November:	(3/)	31	60	100	45	237	1,880
December:							
Argentina	--	--	--	--	(3/)	(3/)	2
Australia	--	--	1	(3/)	(3/)	2	15
Austria	--	--	(3/)	11	--	11	52
Belgium	--	--	--	(3/)	(3/)	(3/)	53
Bolivia	--	--	--	--	--	--	(3/)
Brazil	--	--	2	--	1	2	19
Canada	--	--	2	19	3	25	451
Chile	--	--	(3/)	--	--	(3/)	1
China	--	--	--	--	5	5	8
Denmark	--	--	--	(3/)	--	(3/)	5
France	--	--	--	(3/)	1	1	73
Germany	(3/)	--	9	16	16	41	496
Hong Kong	--	--	--	1	1	1	14
Hungary	--	--	--	--	2	2	12
India	--	--	(3/)	(3/)	5	6	39
Indonesia	--	--	--	--	(3/)	(3/)	1
Ireland	--	--	--	(3/)	3	3	9
Israel	--	--	14	--	(3/)	14	45
Italy	--	--	--	10	(3/)	10	92
Japan	--	--	(3/)	3	2	5	140
Korea, Republic of	--	(3/)	--	4	(3/)	4	34
Lithuania	--	--	--	--	(3/)	(3/)	2
Luxembourg	--	--	--	--	--	--	(3/)
Mexico	--	--	--	1	2	3	56
Netherlands	--	--	--	--	(3/)	(3/)	29
New Zealand	--	--	--	--	--	--	(3/)
Peru	--	--	--	--	--	--	2
Philippines	--	--	--	--	--	--	1
Portugal	--	--	--	--	--	--	3
Russia	--	--	--	--	--	--	1
Saudi Arabia	--	--	--	--	--	--	1
Singapore	--	--	(3/)	3	(3/)	3	52
South Africa	--	--	--	11	--	11	58
Spain	--	--	(3/)	(3/)	1	1	18
Sweden	--	--	--	6	2	8	91
Switzerland	--	--	7	--	(3/)	7	40
Taiwan	--	--	--	2	(3/)	3	47
Thailand	--	--	--	--	--	--	1
Trinidad	--	--	6	--	--	6	6
Turkey	--	--	--	--	--	--	1
United Arab Emirates	--	--	--	--	(3/)	(3/)	(3/)
United Kingdom	--	--	16	8	4	28	77
Venezuela	--	--	(3/)	5	--	5	23
Other	--	--	--	--	1	1	9
Total	(3/)	(3/)	59	101	50	211	2,090
Total, year to date	11	121	410	1,070	478	2,090	XX

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes wrought tungsten, ferrotungsten, and other tungstates.

3/ Less than 1/2 unit.

Note: Estimated exports of waste and scrap in December 1997 totaled 16 metric tons, tungsten content.

Source: Bureau of the Census.